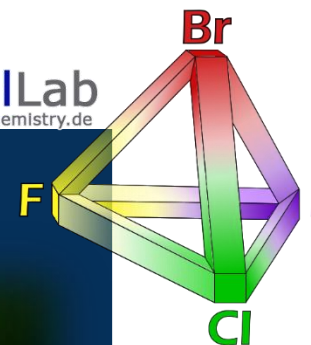


AG Riedel

***Inorganic Molecular Chemistry -
Halogen Chemistry***

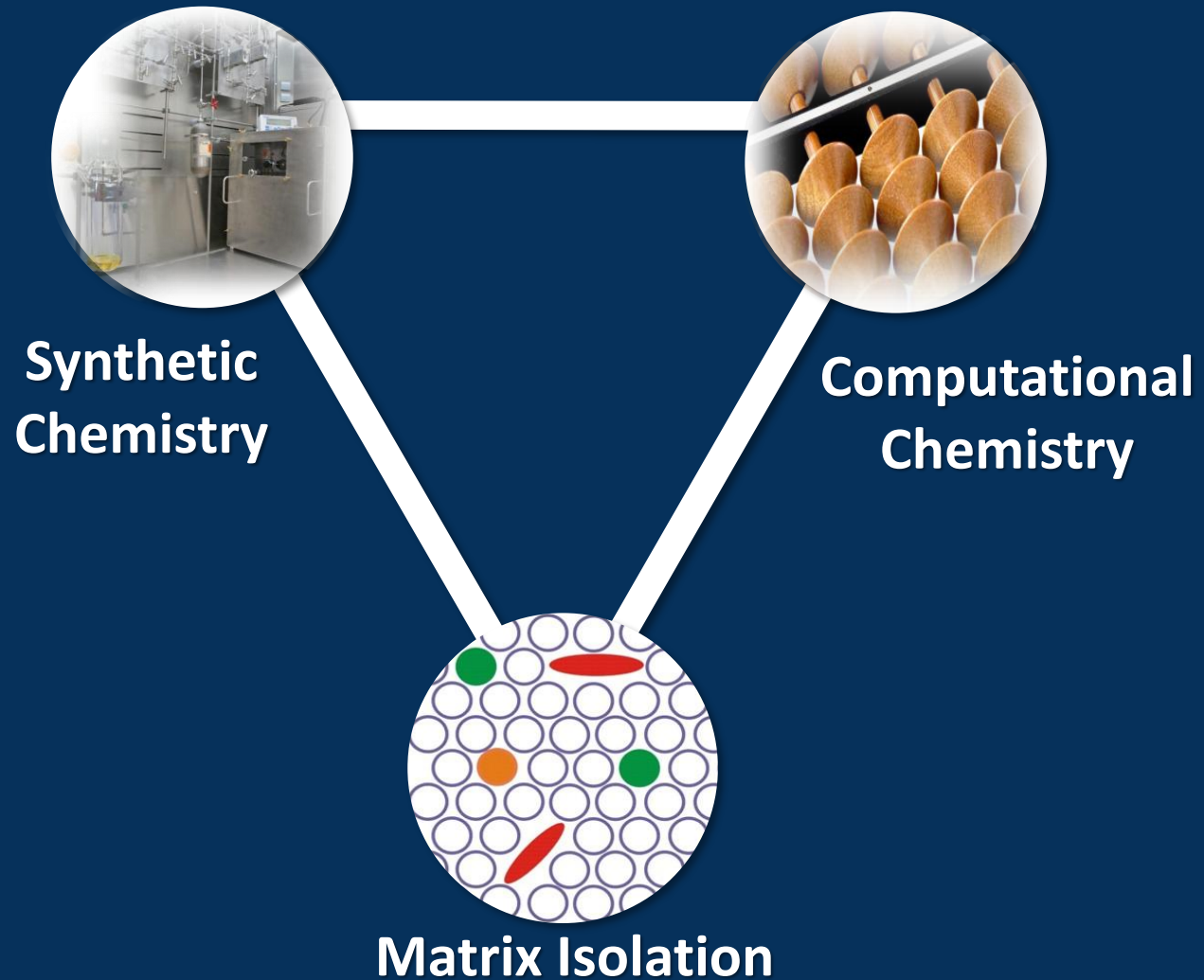
Prof. Dr. Sebastian Riedel
Freie Universität Berlin

RiedelLab
www.fluorinechemistry.de

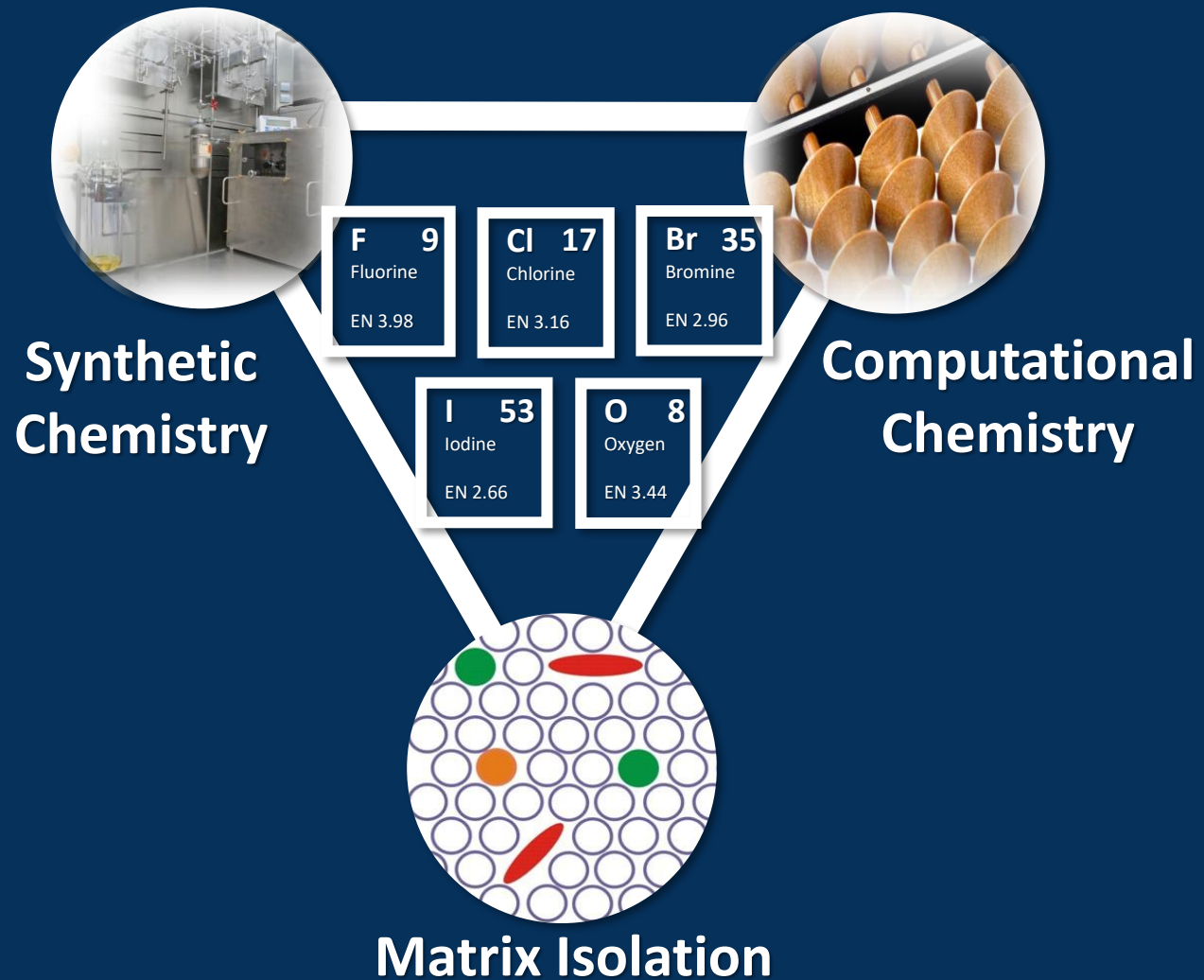


Halogen Chemistry @ AG | Riedel

O 8 Oxygen EN 3.44	F 9 Fluorine EN 3.98
	Cl 17 Chlorine EN 3.16
	Br 35 Bromine EN 2.96
	I 53 Iodine EN 2.66



Halogen Chemistry @ AG | Riedel

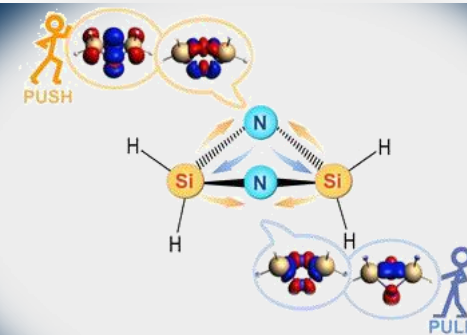
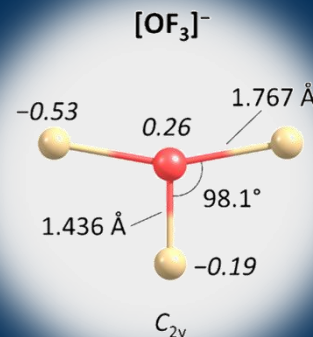
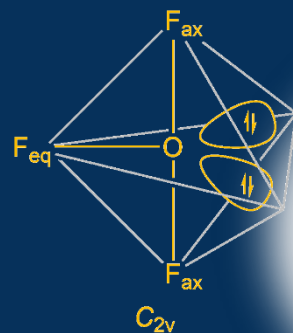
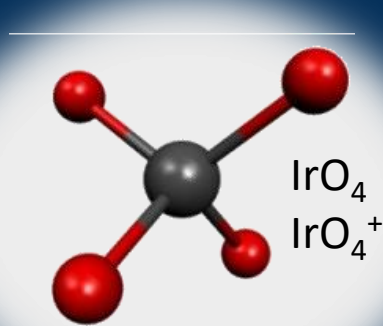


Matrix-Isolation @ AG|Riedel

Quantum-Chemical Calculations / Physical Chemistry / Molecular Chemistry

Nature Commun. **2024**, 15, 3848

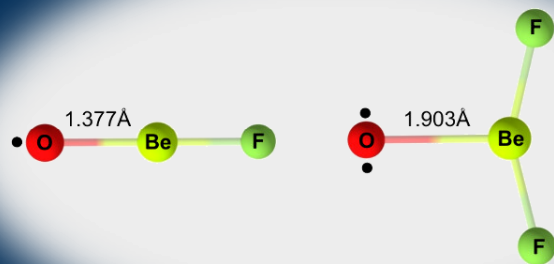
F 9
Fluorine
EN 3.98



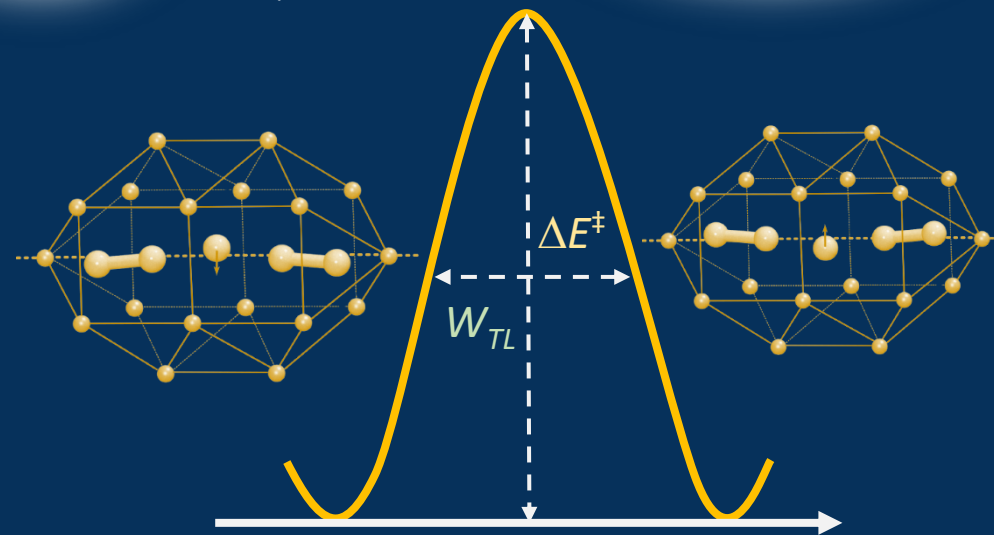
Angew. Chem. Int. Ed. **2024** DOI:10.1002/anie.202413758

Angew. Chem. Int. Ed. **2009**, 48, 7879.

Nature **2014**, 514, 475.



JACS, 2024, DOI: 10.1021/jacs.4c07079



Nature Communications **2025**, 16, 4027



Freie Universität
Berlin

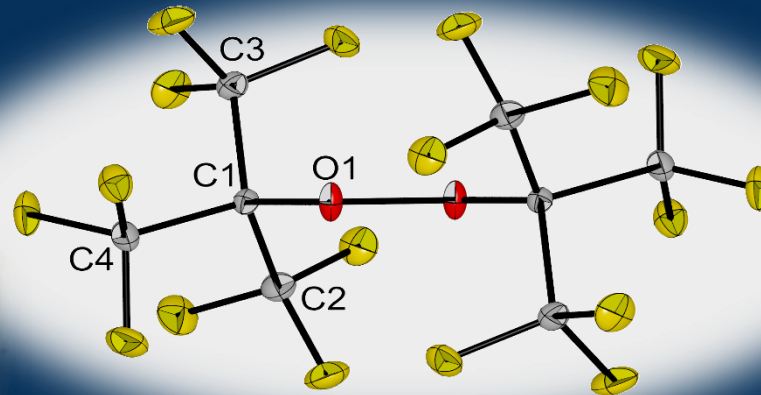
Fluorine @ AG|Riedel

F **9**

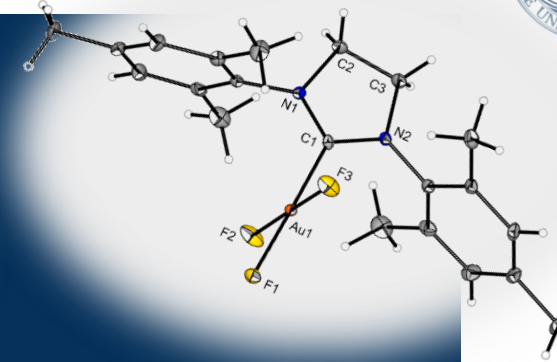
Fluorine

EN 3.98

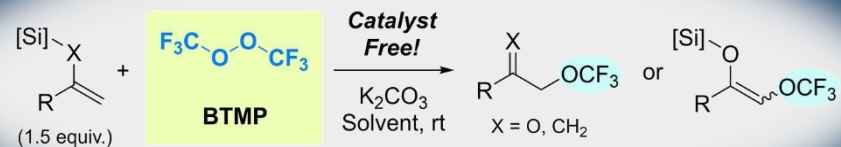
Preparation of
 CF_3OOCF_3 at FU Berlin



Angew. Chem. Int. Ed. **2019**, 58, 3584



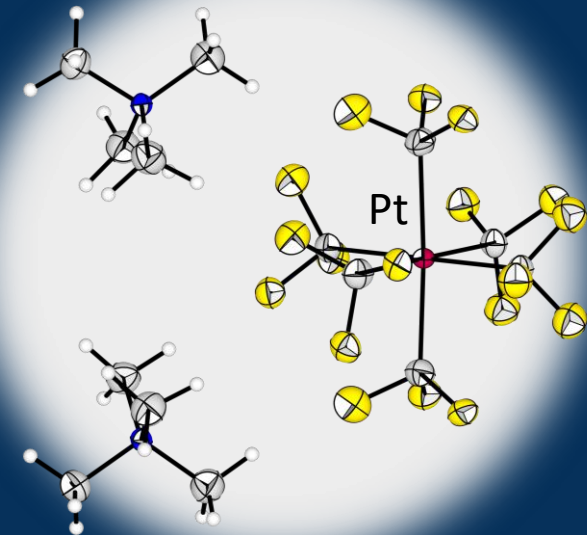
Angew. Chem. Int. Ed. **2018**, 57, 24, 7210



Angew. Chem. Int. Ed. **2024**, 63, e202317770



Chem. Eur. J. **2024**, 30, e202400258.
(HOT Article)



Work in progress **2025**

Super Acids @ AG|Riedel

Chemical Science 2018, 9, 716

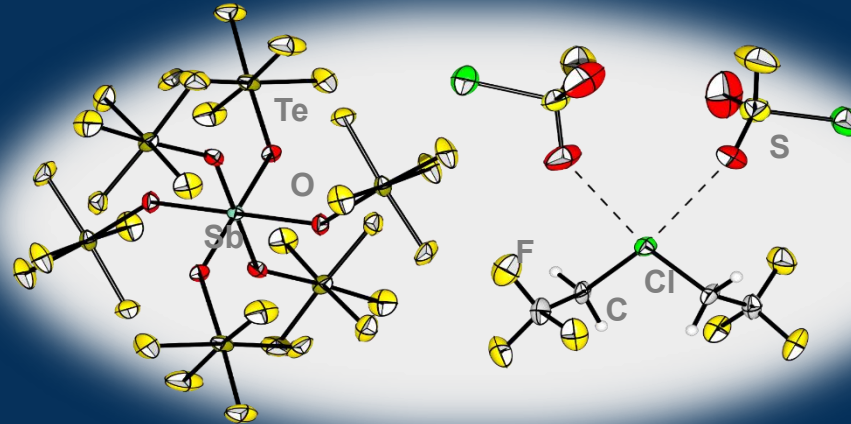
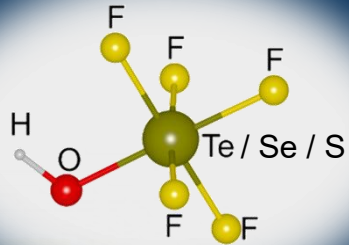
berlin

Chemical
Science

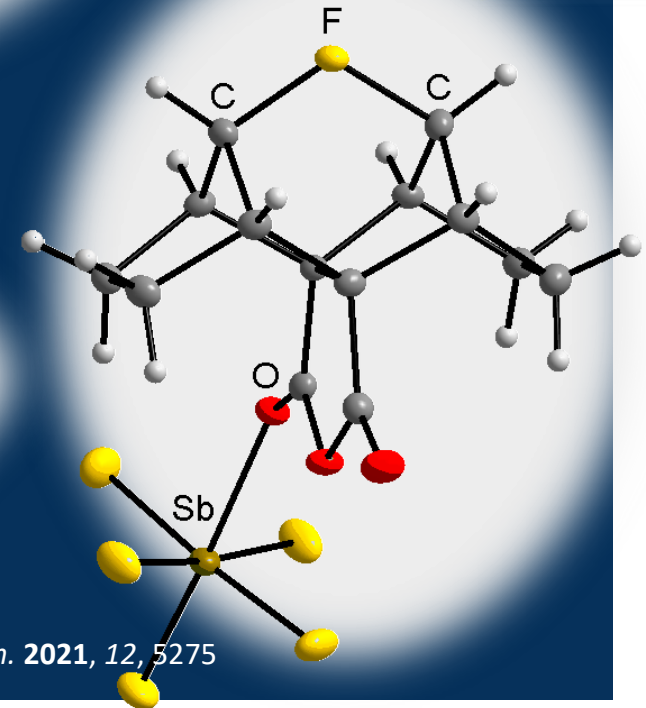
F 9

Fluorine

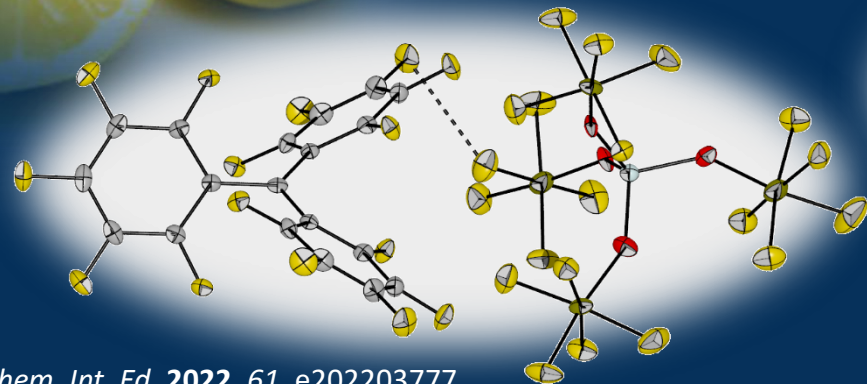
EN 3.98



Angew. Chem. Int. Ed. 2024, e202407



Nature Comm. 2021, 12, 5275



Angew. Chem. Int. Ed. 2022, 61, e202203777



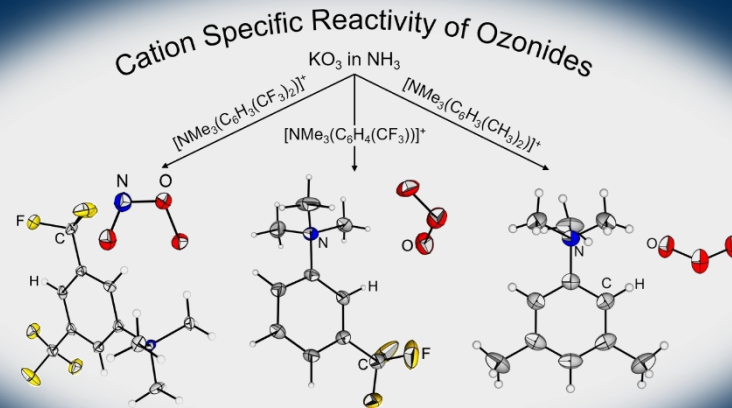
Chemical Science 2024 15, 8038



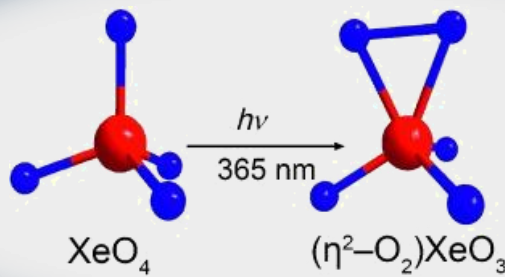
Oxygen @ AG|Riedel

O 8
Oxygen

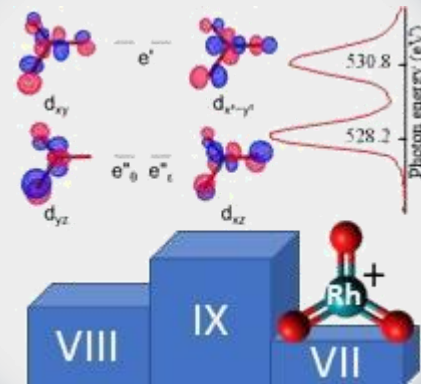
EN 3.44



Chem. Eur. J. **2024**, e202400585.



Chem. Eur. J. **2015**, 21, 31, 11244



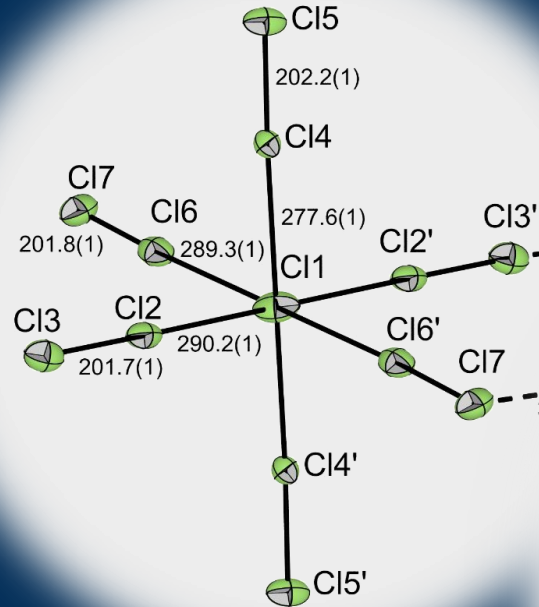
Angew. Chem. Int. Ed. **2022**, 61, e202207688

Chlorine/Bromine @ AG|Riedel

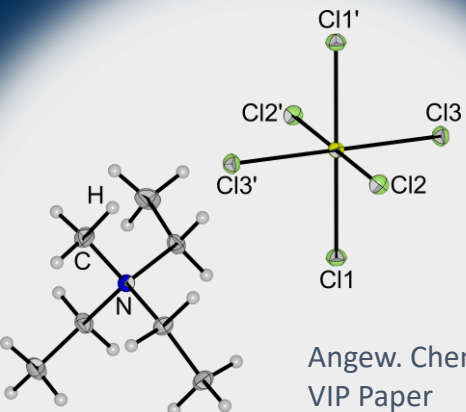
Cl 17

Chlorine

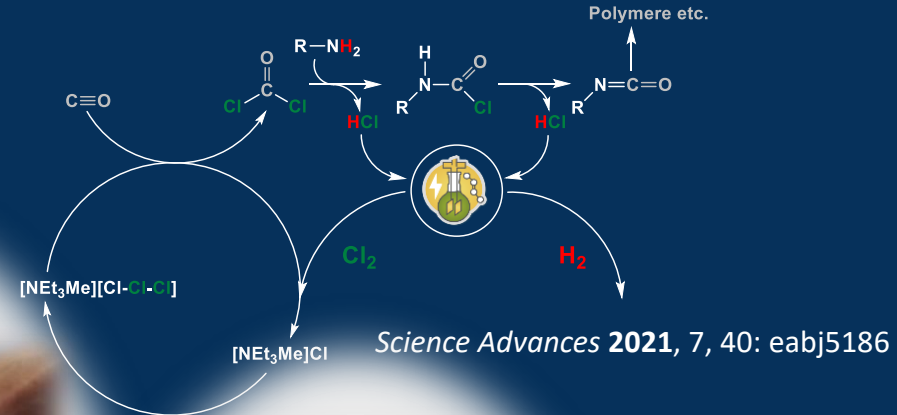
EN 3.16



Angew. Chem. Int. Ed. **2018**, 57, 9136



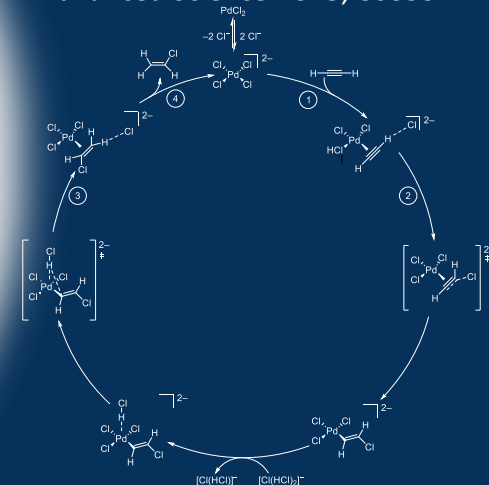
Angew. Chem. Int. Ed. **2022**, 61, e202209684
VIP Paper



Angew. Chem. Int. Ed. **2023**, 62, e202216586

Science Advances, **2024**, 10, eadn5353

Advanced Science **2025**, e03992



Andere Bereiche @ AG | Riedel

Hintergrund 05.09.2025 Lesedauer ca. 10 Minuten Drucken Teilen

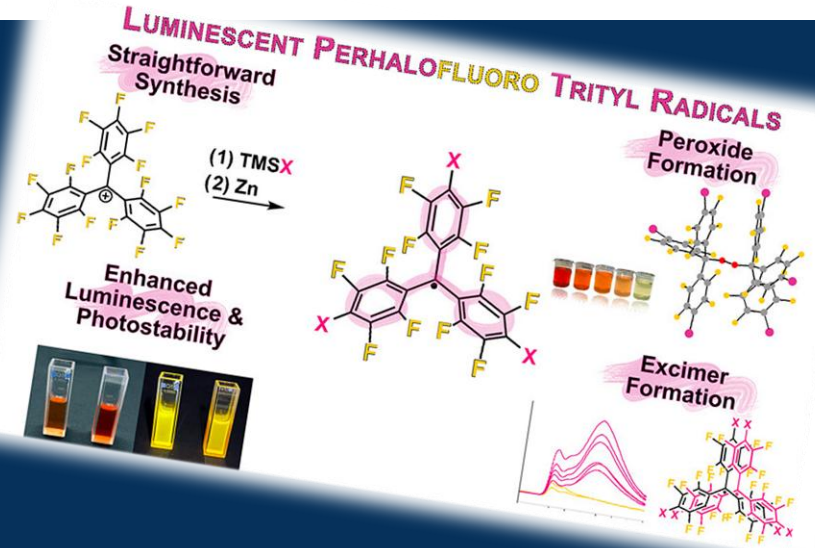
Wie Chlor das Stromnetz stabilisieren kann

Eine exotische Stoffklasse soll eine bemerkenswerte Kehrtwende ermöglichen. Chlor, eine der bedeutendsten Industriechemikalien, könnte vom Gefahrstoff und Klimaproblem zur wichtigen Komponente eines erneuerbaren Energiesystems werden.

von Sebastian Hasenstab-Riedel



Spektrum der Wissenschaften 2025



ChemSusChem 2025, 18, e202402697

Acknowledgment



European Research Council
Established by the European Commission



WSS

WERNER SIEMENS-STIFTUNG

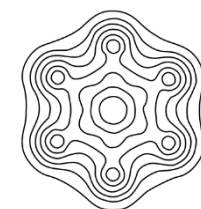
DAAD



Einstein Stiftung Berlin
Einstein Foundation Berlin



Fraunhofer
Institut
Solare Energiesysteme



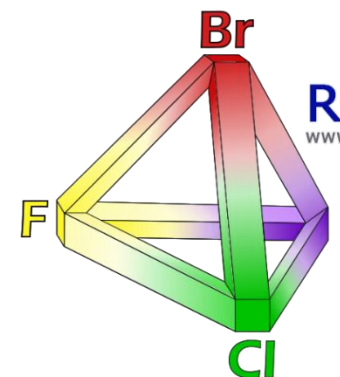
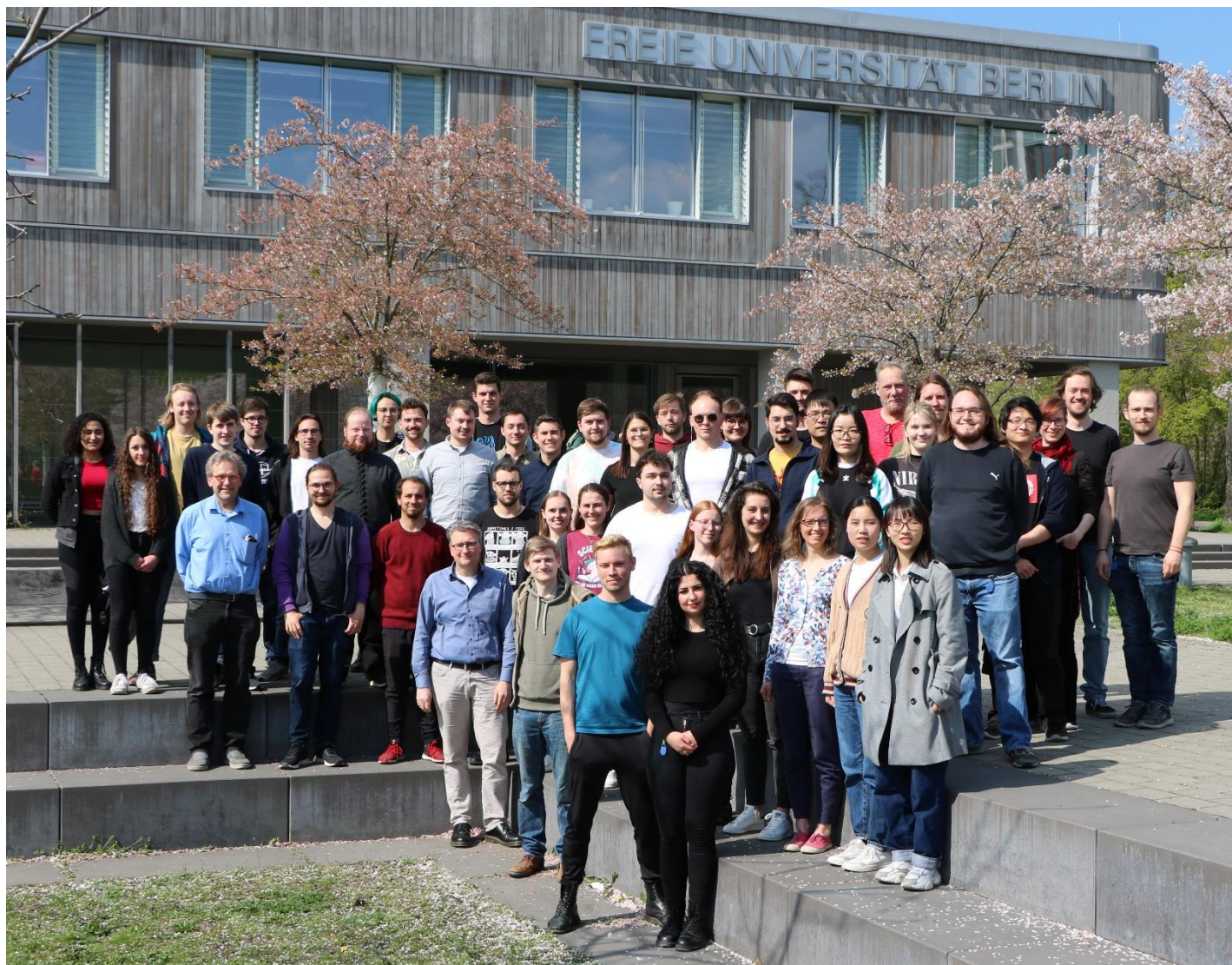
FCI
FONDS DER
CHEMISCHEN
INDUSTRIE



Acknowledgment



Freie Universität
Berlin



RiedelLab
www.fluorinechemistry.de

